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NEW AND NOTEWORTHY WOODY VASCULAR PLANT RECORDS FROM ALABAMA

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ABSTRACT

Nine species of vascular plants are reported as new to Alabama, and new county records are included for four species. Those species reported as new for the state are *Buxus sempervirens, Prunus campanulata, Camellia japonica, Jasminum nudiflorum, Jasminum mesnyi, Populus nigra, Loropetalum chinense, Trachelospermum jasminoides*, and *Ficus pumila*. New county records are reported for *Salix floridana, Hamamelis ovalis, Tetrapanax papyrifer*, and *Euonymus japonicus*.

KEY WORDS: Alabama, woody plants, new distribution records

New records for native and non-native species have accumulated for Alabama as a result of field studies. A complete set of the specimens is housed at TROY, UWAL, and VDB. County and state records were determined using the Alabama Plant Atlas (Kral et al. 2013), the North American Plant Atlas (BONAP 2011), and searches of literature.

Buxus sempervirens L. (Buxaceae)

Vouchers: **USA. Alabama**. Geneva Co.: Trash dump in edge of disturbed sandy woods ca. 1/10 mi NE of the intersection of Alabama Hwy 27 and Alabama Hwy 52 in Geneva, 31.041528° -85.858083°, 1 Jan 2009, *Diamond with P.C. Harris 20484*. Escambia Co.: East Brewton, steep hardwood forested slope on the N side of Fort Crawford Cemetery, heavily disturbed woodland with many exotics, sandy soil, 31.100832° -87.057524°, 28 Dec 2012, *Diamond 23620* .

This is the first report of this taxon from Alabama. It was not included by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. Its inclusion in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011) is based on the Geneva County record. In the USA, it has been previously reported from Tennessee and North Carolina north into New England (BONAP 2011; USDA 2013).

This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites, and Weakley (2012) states that it "persistent for decades at abandoned homesites." Neither of the Alabama collections, however, seems to represent plants persisting from cultivation. This species is often propagated by cuttings, and hedge trimmings dumped at the Geneva County site may have become buried during flood events and be the source of that population. The Escambia population is on a steep slope below a cemetery. It could likewise have resulted from trimmings thrown over the edge or from plants carried downslope by erosion.

Prunus campanulata Maxim. (Rosaceae)

Vouchers: **USA. Alabama**. Conecuh Co.: Several small multi-trunk trees 15–20 ft tall with many seedlings under 3 ft tall on wooded vacant lot ca. 200 feet N of US Hwy 31 on Conecuh County Hwy 77 in Evergreen, 31.438124° -86.934437°, 6 Feb 2010, *Diamond 21134*.

This represents the first report of this taxon from Alabama. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. Its inclusion in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011) is based on this record. This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites. It was reported as naturalized in suburban woodlands in the Tallahassee (Leon Co., Florida) area by Clewell and Tobe (2011). It is not included in the North American Plant Atlas (BONAP 2011) or in the Plants Database (USDA 2013). The species produces abundant crops of small fruit that are eagerly sought by birds and squirrels (Fig. 1). Hundreds of seedlings of various sizes were observed growing on the wooded vacant lot.

Camellia japonica L. (Theaceae)

Vouchers: **USA. Alabama**. Conecuh Co.: Seed spread by squirrels to vacant lot ca. 300 ft N of US Hwy 31 on Conecuh County Hwy 77 in Evergreen, 31.438098° -86.934497°, 15 Jun 2011, *Diamond 22250.*

This represents the first report of this taxon from Alabama. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. It was also not included in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011). This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites. Weakley (2012) states that this species "persistent for decades at abandoned homesites" in that region. Serviss (2011) reports that "spontaneous/volunteer seedlings" have been observed under a cultivated plant in Arkansas and that species could be encountered outside of cultivation in that state. In the USA, it has been previously reported from Arkansas, Florida, Georgia, North Carolina, and South Carolina (BONAP 2011, USDA 2013). In Alabama, the plant is sometimes encountered persisting at old home sites, but this is the first report of the plant becoming established from animal-dispersed seed. Eastern Grey Squirrels (*Sciurus carolinensis*) were observed on numerous occasions to feed on the seed of planted camellias and to bury seed for later consumption (Fig. 2).

Jasminum nudiflorum Lindl. (Oleaceae)

Vouchers: **USA. Alabama**. Butler Co.: Red clay roadside bank in full sun on Butler County Hwy 54 (Ridge Road) 1 mi NW of Butler County Hwy 19, 31.900694° -86.786972°, 17 Feb 2011, *Diamond 21748.*

This represents the first report of this taxon from Alabama. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. Its inclusion in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011) is based on this record. This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites. In the USA, it has been previously reported from Georgia, Maryland, Oklahoma, New Jersey, and Tennessee (BONAP 2011; USDA 2013). Weakley (2012) states that it is "cultivated and rarely persistent or spreading." The Alabama population covered an extensive area on a roadside bank and was spreading as limbs rooted as they came into contact with the ground (Fig. 3). The adjacent top of the bank was kept clear of competing woody vegetation by right-of-way maintenance along an overhead power line.

Populus nigra L. (Salicaceae)

Vouchers: **USA. Alabama**. Crenshaw Co.: Abundant on vacant lot in full sun and sandy soil on the W side of US Hwy 331 at N side of Cemetery Road in Brantley, 31.578333° -86.256361°, 1 May 2011, *Diamond 22006.*

This represents the first report of this taxon from Alabama outside of cultivation. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. Neither was it included in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011) because all herbarium specimens present in member institutions represented cultivated material. It is listed for the state by Weakley (2012), the Plants Database (USDA 2013), and BONAP (2011), but it is not known if their citations are based on records other than those observed by the Flora of Alabama Committee. This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites. In the USA, it has been previously reported from Arizona, Florida, Georgia, Louisiana, and Texas (BONAP 2011). All of the plants at the Alabama site appear to be vegetative root sprouts (Fig. 4).

Ficus pumila L. (Moraceae)

Vouchers: **USA. Alabama**. Butler Co.: Greenville, North Chestnut Street between Alabama Hwy 10 and Cedar Street, covering several buildings and parking lots, 31.830000° -86.619000°, 17 Apr 2011, *Diamond 21905*.

This species has previously been reported from Alabama, Florida, Georgia, and Louisiana, and Texas (BONAP 2011). The Alabama record is for Mobile County and was collected by Lloyd C. Crawford and annotated by R. Deramus during her study of the flora of Dauphin Island (1971). According to Steve Ginzbarg, collections manager at UNA, the label states that the specimen was "cultivated climbing on brick wall of fort" (Ginzbarg, pers. comm.). Thus previous reports of this species escaped or naturalized in Alabama based on this specimen are erroneous. This species is commonly recommended for use as an ornamental, and this population appears to have begun as a planting on a brick building that has since spread to other nearby buildings and parking lots. It now covers a large area, growing both on the side of brick buildings and creeping across parking lots (Fig. 5).

Loropetalum chinense (R. Br.) Oliver var. **rubrum Yieh** (Hamamelidaceae)

Vouchers: **USA. Alabama**. Conecuh Co.: Evergreen, Bellville Avenue between East Front Street and Desplous Street, growing in the broken sidewalk next to an abandoned building across for the First United Methodist Church, 31.432099° -86.955465°, 29 Sep 2012, *Diamond 23450*.

This represents the first report of this taxon from Alabama. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. It was also not included in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011). Serviss (2011) reports spontaneous seedlings of both the green and purple foliage varieties have been observed in the vicinity of reproductive age plants in Arkansas. Arkansas is the only state listed by BONAP (2011) for this species. Yanjun et. al (2009) reported that this species exhibits ballistic seed dispersal similar to our native witch hazels (*Hamamelis* sp.). Because of the unusual location of the plant, it most likely resulted from ballistic seed dispersal from shrubs growing around the church (Fig. 6).

Euonymus japonicus Thunb. (Celastraceae)

Vouchers: **USA. Alabama**. Butler Co.: Greenville, Alabama Hwy 10, 0.05 mi E of Butler County Hwy 50, cut-over woods on the S side of the road, 31.831222° -86.586250°, 19 Dec 2012, *Diamond 23601*.

This species was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. It was also not included in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011). Serviss (2011) reports that this species has been observed as possibly spontaneous in Arkansas. In the USA, it has been previously reported from Illinois, Indiana, Louisiana, Missis-

sippi, North Carolina, Virginia, and West Virginia (BONAP 2011; USDA 2013). This report is from a heavily disturbed woodland with many other introduced woody species such as privet (*Ligustrum sinense* and *Ligustrum lucidum*), nandina (*Nandina domestica*), chinaberry (*Melia azedarach*), and paper mulberry (*Broussonetia papyrifera*).

Trachelospermum jasminoides (Lindl.) Lemaire (Apocynaceae)

Vouchers: **USA. Alabama**. Pike Co.: Troy, Troy University Arboretum, forming dense ground cover along a small creek behind compost bins, escaped, 31.795491° -85.962106°, 31 Oct 2011, *Diamond 22680*. Pike Co.: Troy, Troy University Arboretum, disturbed woodland along small creek off Pell Avenue, abundant ground cover and climbing trees and shrubs, 31.795491° -85.962106°, 20 Apr 2012, *Diamond 22942*.

Trachelospermum jasminoides was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. It was also not included in the Annotated Checklist of the Vascular Plants of Alabama (Kral et. al 2011). In the USA, it has been previously reported from Arkansas, Arizona, Florida, Georgia, and Louisiana (BONAP 2011; USDA 2013). This population is quite extensive and appears to have originated from material placed in the compost bins. It has formed a thick ground cover and is climbing native shrubs and trees. Only arboreal stems produced flowers (Fig. 7).

Salix floridana Chapm. (Salicaceae)

Vouchers: **USA. Alabama**. Butler Co.: Seep on tributary of Pigeon Creek, 31.79° -86.52°, 16 Sep 2012, *Diamond 23380,* 21 Sep 2012, *Diamond 23404* with Wayne Webb.

This represents the third county for this species in Alabama and the northern most location in the state. Several small trees were observed growing in a seep and along a spring run. *Salix floridana* is listed as an S1 species (typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in the state) by the Alabama Natural Heritage Program (2012). Location information has been obscured due to the rarity of this species (Fig. 8).

Hamamelis ovalis S.W. Leonard (Hamamelidaceae)

Vouchers: **USA. Alabama**. Butler Co.: Dry sandy cut over woods, 31.87° -86.75°, 21 Sep 2012, *Diamond 23391* with Wayne Webb.

This represents the fifth county for this species in Alabama. The species was first reported from Alabama by Keener (2010). Several small trees were observed growing around the top of a steep hardwood ravine. *Hamamelis ovalis* is listed as an S1 species (typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in the state) by the Alabama Natural Heritage Program (2012). Location information has been obscured due to the rarity of this species (Fig. 9).

Tetrapanax papyrifer (Hook.) K. Koch (Araliaceae)

Vouchers: **USA. Alabama**. Conecuh Co.: Evergreen, South Main Street ca. 0.09 mi S of US Hwy 31, site of the former Evergreen High School, full sun, disturbed vacant lot, 31.434502° -86.943521°, 17 Nov 2011, *Diamond 22701*. Butler Co.: Greenville, Adams Street, 0.04 mi E of Bolling Street, weedy overgrown vacant lot used as a parking lot, full sun, sandy soil, common, 31.828957° -86.626851°, 22 Dec 2012, *Diamond 23605*.

This represents the second and third reports for this species as naturalized in Alabama. This taxa was fist collected in Mobile County by H.E. Horne in June of 2011 (Barger et al. 2012). Like the Horne collection, the species had been observed at the Conecuh County location for many years prior to its collection. Large specimens often flower, but no mature fruit has been observed. Most reproduction seems to be from root sprouts, and dense stands are often observed over small areas. At the Butler County site, root sprouts were found some distance from any large plants (Fig. 10).

Jasminum mesnyi Hance (Oleaceae)

Vouchers: **USA. Alabama**. Montgomery Co.: Cedar glade on the E side of Montgomery County Hwy 103, 0.28 mi N of Sugarberry Lake Road, 32.279387° -86.408052°, 18 Mar 2010, *Diamond 21196*. Conecuh Co.: Owassa, Conecuh County Hwy 22 at the railroad, red clay soil of bank along the railroad, full sun, 31.491929° -86.923566°, 19 Jan 2013, *Diamond 23662*.

This represents the third and fourth reports of this taxon from Alabama. It was not listed by Clark (1971) or Dean (1961) in their works on woody plants of Alabama. This species is commonly recommended for use as an ornamental and occasionally escapes or persists around old home sites. In the USA, it has been previously reported from Arizona, Florida, Georgia, Louisiana, and Texas (BONAP 2011). Weakley (2012) states that it is "cultivated and rarely persistent or spreading." Both Alabama populations were spreading as limbs rooted when they came into contact with the ground (Fig. 11).

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Figure 1. *Prunus campanulata* in fruit.

Figure 2. *Camellia japonica* fruit and seed.

Figure 3. *Jasminum nudiflorum* growing on a roadside under a power line right-of-way.

Figure 4. *Populus nigra* sprouts and young trees growing on a vacant lot.

Figure 5. *Ficus pumila* growing on vacant buildings and in parking lots.

Figure 6. *Loropetalum chinense* var. *rubrum* in flower.

Figure 7. *Trachelospermum jasminoides* in flower.

Figure 8. *Salix floridana*.

Figure 9. *Hamamelis ovalis* in flower.

Figure 10. *Tetrapanax papyrifer*.

Figure 11. *Jasminum mesnyi* in flower.